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PATENT APPLICATION
File No: 97-44D1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : David A. Adler, James L. Holloway, Nand Baindur, Stephanie Beigel-
Orme, Paul O. Sheppard
Serial No. : 10/091,166
Group Art Unit : 1653
Examiner :
Filed : March 5, 2002
For : NOVEL BETA-DEFENSINS

CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8(a)

Commissioner for Patents
Washington, DC 20231

Sir:

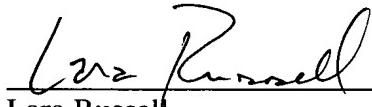
I hereby certify that the attached correspondence comprising:

1. Information Disclosure Statement (in duplicate)
2. PTO-1449 Form
3. 48 References
4. Return Postcard

is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner for Patents
Washington, DC 20231

on September 16, 2002.



Lara Russell

Information Disclosure Statement

Page 2 of 2

Applicant(s): Adler et al.

Serial No.: 10/091,166

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Since this Information Disclosure Statement is submitted after receipt of an Office Action in the above-identified patent application, please charge a fee of \$180 to Deposit Account No. 26-0290 under 37 C.F.R. §§1.97(d) and 1.17(p). Please charge any additional fees or credit any overpayment to Deposit Account No. 26-0290.

Respectfully submitted,



Brian J. Walsh
Registration No. 45,543
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PATENT APPLICATION
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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, DC 20231

Sir:

In compliance with the duty imposed by 37 C.F.R. §1.56, and in accordance with C.F.R. §§1.97 *et. seq.*, references listed on the enclosed 1449 form(s) are brought to the attention of the Examiner as possibly being of interest in connection with the above-identified patent application. Consideration of each of the documents listed on the attached 1449 form(s) is respectfully requested.

The present application is a divisional of U.S. Patent Application Serial No. 09/636,399, filed August 10, 2000, which is a continuation-in-part of U.S. Patent Application Serial No. 09/344,097, filed June 25, 1999, which is a continuation-in-part of U.S. Patent Application Serial No. 09/150,786, filed September 10, 1998, which claims the benefit of U.S. Patent Application Serial No. 60/064,294, filed November 5, 1997, and U.S. Patent Application Serial No. 60/058,335, filed September 10, 1997.

Pursuant to the provisions of M.P.E.P. §609, Applicants further request that a copy of the 1449 form(s), marked as being considered and initialed by the Examiner, be returned with the next Official Communication.

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FORM PTAB 1449
(REV 2-32)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

File No. 97-44D1

Serial No.
10/091,166

Applicant(s):

David A. Adler, James L. Holloway,
Nand Baindur, Stephanie Beigel-Orme,
Paul O. SheppardFiling Date: Group: 1653
March 5, 2002

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	Name	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

Examiner Initial		DOCUMENT NUMBER	Date	COUNTRY	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A1	95/32287	11/30/95	PCT			
	A2	99/06554	02/11/99	PCT			
	A3	00/07612	02/17/00	PCT			
	A4	00/46245	08/10/00	PCT			
	A5	01/42467	06/14/00	PCT			
	A6	02/04487	01/17/02	PCT			
	A7	02/40512	05/23/02	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Patents, etc.)

	A8	Jia et al., "Discovery of new human beta-defensins using a genomics-based approach," <i>Gene</i> , 263(1-2):211-218 (Jan. 2001).
	A9	Lehrer et al. "Defensins: antimicrobial and cytotoxic peptides of mammalian cells," <i>Annu Rev Immunol.</i> , 11:105-128 (1993). Review.
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	A11	Incyte Pharmaceuticals, Inc. clone, 1996:INC1433022.
	A12	Incyte Pharmaceuticals, Inc. LIBRARY, 1996:BEPINON01.

Examiner	Date considered
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. PATENT AND TRADEMARK OFFICE
FORM PTO 1449 (REV 2-32)

Sheet 2 of 6

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				File No. 97-44D1	Serial No. 10/091,166
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Applicant(s): David A. Adler, James L. Holloway, Nand Bairdur, Stephanie Beigel-Orme, Paul O. Sheppard	
				Filing Date: March 5, 2002	Group: 1653

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A13	Incyte Pharmaceuticals, Inc. LIBRARY, 1996: LPARNOT02.
A14	Selsted et al., "Purification, primary structures, and antibacterial activities of beta-defensins, a new family of antimicrobial peptides from bovine neutrophils," <i>J Biol Chem.</i> , 268(9):6641-6648 (March 25, 1993).
A15	Bensch et al., "hBD-1: a novel beta-defensin from human plasma," <i>FEBS Lett.</i> , 368(2):331-335 (July 17, 1995).
A16	Bowie et al., "Deciphering the message in protein sequences: tolerance to amino acid substitutions," <i>Science</i> , 247(4948):1306-1310 (March 16, 1990).
A17	Wells, J.A., "Additivity of mutational effects in proteins," <i>Biochemistry</i> , 29(37):8509-8517 (Sept. 18, 1990).
A18	Liu et al., "Structure and mapping of the human beta-defensin HBD-2 gene and its expression at sites of inflammation," <i>Gene</i> , 222(2):237-244 (Nov. 19, 1998).
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A20	Daher et al., "Direct inactivation of viruses by human granulocyte defensins," <i>J Virol.</i> , 60(3):1068-1074 (Dec. 1986).

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FORM PTO 1449
(REV 2-32)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 3 of 6

TECH CENTER 1600/2900
SEP 24 2002

File No. 97-44D1

Serial No.
10/091,166

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A21	Martin et al., "Defensins and other endogenous peptide antibiotics of vertebrates," <u>J Leukoc Biol.</u> , <u>58</u> (2):128-136 (Aug. 1995). Review.
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A26	Tamura et al., "A marked decrease in defensin mRNA in the only case of congenital neutrophil-specific granule deficiency reported in Japan," <u>Int J Hematol.</u> , <u>59</u> (2):137-142 (Feb. 1994).
A27	Higazi et al., "Defensin modulates tissue-type plasminogen activator and plasminogen binding to fibrin and endothelial cells," <u>J Biol Chem.</u> , <u>271</u> (30):17650-5 (July 26, 1996).
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FORM PTO 1449
(REV 2-32)U.S. DEPARTMENT OF COMMERCE
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	A29		Circo et al., "Structural and functional characterization of hBD-1(Ser35), a peptide deduced from a DEFB1 polymorphism," <u>Biochem Biophys Res Commun.</u> , 293(1):586-92 (April 26, 2002).
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	A31		Harder et al., "Isolation and characterization of human beta -defensin-3, a novel human inducible peptide antibiotic," <u>J Biol Chem.</u> , 276(8):5707-13 (Feb. 23, 2001).
	A32		Goldman et al., "Human beta-defensin-1 is a salt-sensitive antibiotic in lung that is inactivated in cystic fibrosis," <u>Cell</u> , 88(4):553-60 (Feb. 21, 1997).
	A33		Smith et al., "Cystic fibrosis airway epithelia fail to kill bacteria because of abnormal airway surface fluid," <u>Cell</u> , 85(2):229-36 (April 19, 1996).
	A34		Davies et al., "CFTR gene transfer reduces the binding of <u>Pseudomonas aeruginosa</u> to cystic fibrosis respiratory epithelium," <u>Am J Respir Cell Mol Biol.</u> , 16(6):657-63 (June 1997).
	A35		Dunsche et al., "The novel human beta-defensin-3 is widely expressed in oral tissues," <u>Eur. J. Oral. Sci.</u> , 109:121-124 (2002).

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U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
Form PTO 1449 (REV 2-32)

**U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE**

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A36	Cullor et al., "In vitro antimicrobial activity of defensins against ocular pathogens," <u>Arch Ophthalmol.</u> , <u>108</u> (6):861-864 (June 1990).
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A39	Haynes et al., "Innate defence of the eye by antimicrobial defensin peptides," <u>Lancet</u> , <u>352</u> (9126):451-452 (Aug. 8, 1998).
A40	Haynes et al., "Antimicrobial defensin peptides of the human ocular surface," <u>Br J Ophthalmol.</u> , <u>83</u> (6):737-41 (June 1999).
A41	Sawicki et al., "Contraceptive potential of peptide antibiotics," <u>Lancet</u> , <u>353</u> (9151):464-5 (Feb. 6, 1999).
A42	Garcia et al., "Identification of a novel, multifunctional beta-defensin (human beta-defensin 3) with specific antimicrobial activity. Its interaction with plasma membranes of <i>Xenopus</i> oocytes and the induction of macrophage chemoattraction," <u>Cell Tissue Res.</u> , <u>306</u> (2):257-64 (Nov. 2001).

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1449 (REV 2-32)

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TECH CENTER 1600/2000 6 of 6

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A43	Zasloff, M., "Antimicrobial peptides of multicellular organisms," <i>Nature</i> , 415:389-395 (Jan. 2002).
A44	Krisanaprakornkit et al., "Regulation of human beta-defensin-2 in gingival epithelial cells: the involvement of mitogen-activated protein kinase pathways, but not the NF-kappaB transcription factor family," <i>J Immunol.</i> , 168(1):316-324 (Jan. 1, 2002).
A45	Garcia et al., "Human beta-defensin 4: a novel inducible peptide with a specific salt-sensitive spectrum of antimicrobial activity," <i>FASEB J.</i> , express article 10.1096/fj.00-0865fje, published online on June 18, 2001.
A46	Duits et al., "Inhibition of hBD-3, but not hBD-1 and hBD-2, mRNA expression by corticosteroids," <i>Biochem Biophys Res Commun.</i> , 280(2):522-525 (Jan. 2001).
A47	Hancock et al., "Antibiotic resistance in <i>Pseudomonas aeruginosa</i> : mechanisms and impact on treatment," <i>Drug Resist Updat.</i> , 3(4):247-255 (Aug. 2000).
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